

## CLAIMS:

What is claimed is:

1. A tip cap comprising a base portion having an upper surface and a lower surface, a body having a top wall with a non-circular cross-section extending from said upper surface, and a shaft extending from said lower surface.
2. The tip cap of claim 1, wherein said non-circular cross section is elliptical.
3. The tip cap of claim 1, wherein said non-circular cross-section is oval.
4. The tip cap of claim 1, wherein said non-circular cross section is rectangular.
5. The tip cap of claim 1, wherein said non-circular section is comprised of a pair of arcuate structures.
6. The tip cap of claim 1, wherein said non-circular section is polygonal in shape.
7. The tip cap of claim 1, wherein said non-circular section is comprised of a plurality of cylindrical structures arranged around the central axis of said tip cap.
8. The tip cap of claim 1, wherein said top wall includes a textured surface.
9. The tip cap of claim 8, wherein said textured surface includes a plurality of ribs.

10. The tip cap of claim 8, wherein said textured surface includes a plurality of dimples.
11. The tip cap of claim 1, wherein said top surface includes a plurality of circumferentially spaced ribs.
12. The tip cap of claim 1, further comprising means for connecting said tip cap to a syringe.
13. The tip cap of claim 12, wherein said means for connecting comprises a luer slip connection.
14. The tip cap of claim 12, wherein said means for connecting comprises a helical thread.
15. A syringe assembly comprising:  
a syringe comprising a barrel and a syringe tip extending from said barrel,; and  
a tip cap for sealingly covering said syringe tip and comprising:  
a base portion having an upper surface and a lower surface, a body having a top wall with a non-circular cross-section extending from said upper surface, and a shaft extending from said lower surface having connection means for attaching to said syringe tip.
16. The syringe assembly of claim 15, wherein said cylinder has a non-circular elliptical cross section.

17. The syringe assembly of claim 15, wherein said cylinder has an oval cross-section.
18. The syringe assembly of claim 15, wherein said cylinder has a rectangular cross section.
19. The tip cap of claim 15, wherein said non-circular section is comprised of a pair of arcuate structures.
20. The tip cap of claim 15, wherein said non-circular section is polygonal in shape.
21. The tip cap of claim 15, wherein said non-circular section is comprised of a plurality of cylindrical structures arranged around the central axis of said tip cap.
22. The syringe assembly of claim 15, wherein said top wall is at least partially perimetricaly disposed on said upper surface.
23. The syringe assembly of claim 15, wherein the exterior of said cylinder further includes a textured surface.
24. The syringe assembly of claim 23, wherein said textured surface includes a plurality of ribs.
25. The syringe assembly of claim 23, wherein said textured surface includes a plurality of dimples.

26. The syringe assembly of claim 23, wherein said textured surface includes a plurality of radially extended flanges.

27. The syringe assembly of claim 15, wherein said connection means is a luer slip connection.

28. The syringe assembly of claim 15, wherein said connection means is a helical thread.

29. The syringe assembly of claim 15, wherein a recessed well extends at least partially through said lower surface of said base portion.

30. The syringe assembly of claim 29, wherein, said syringe tip at least partially extends into said well with said tip cap covering said syringe tip of said syringe.